JACK DARCY

Cybersecurity Expert, Hacker, Speaker, and Embedded Device Engineer.

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Brisbane, QLD 4000
(Remote Preferred)
AU Citizen
Security Clearance Eligible

ONLINE

🌐 jackdarcy.com.au

⬛ github.com/wowitsjack

in linkedin.com/in/wowjackdarcy

EDUCATION

Australian Science & Mathematics School

Adelaide, South Australia

2005-2009

SAE Qantm

Adelaide, South Australia
東京, Japan

2013-2015

Adelaide College of the Arts

Adelaide, South Australia

2015-2016

SKILLS

Cybersecurity R&D

IoT/Embedded Device Security

RF/Aerospace/Defense Systems

Intelligence Operations

DFIR/Digital Forensics

Adversary Simulation

PROFILE

Hello!

My name is Jack.

I am a computer security specialist based in Brisbane, QLD.

I have extensive experience with a wide variety of technologies including (A)IoT/Windows/Linux/macOS/iOS/UMTS/LTE/GSM/RF/CAN/802.11x/SCADA, and radio signals analysis, among a wide variety of other technologies.

I have led teams of up to 20 in complex bespoke security deployments.
I also possess very strong autonomous work ethic with a strong passion for research and mentoring/upskilling colleagues.

I've worked with clients in over ten countries including various Government/Paramilitary/ NGO organizations offering cyber counterterrorism tactical input regarding systems deployment, RF architecture, investigation methodology, intelligence operations, and more.

I have a vast knowledge of attack methodology used by extremely sophisticated adversaries. In addition, I also possess brilliant communication and mentorship skills with multiple students going on to find several headline-breaking CVE's in large-scale products (Pulse® SSL, Microsoft® Windows, etc.)

While I specialize in: Penetration testing, static/dynamic software analysis, device research, GSM/UMTS/LTE/Mobile networks security, embedded device security, IoT, DSP and security design as a whole I also have a deep passion for teaching others, and sharing my knowledge with teams to encourage growth and curiosity.

Thank you very much for taking the time to read this, and feel free to get in touch!
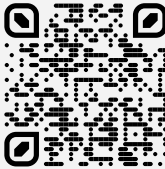
RECENT WORK EXPERIENCE

LEAD CYBER SECURITY CONSULTANT & DIGITAL TRANSFORMATION LEAD CONTRACTOR

Prospa - Brisbane/Sydney, AU (Contract)

2021 - 2022

- Developed and ran internal cyber training progams, and exercises both in the digital, and instructor-led spaces.
- Undertook complete assessment of the enterprise-wide security posture, and preparation level at the holistic level.
- Performed vendor security, suitability, and value assessments.
- Worked with the People & Culture team to develop, and deploy groundbreaking training and awareness materials.
- Developed internal threat metrics, and measurement systems for rapid assessment of cyber maturity, and resiliency.

HEAD CYBER SECURITY ENGINEER/GRC LEAD

hipages Group - Brisbane/Sydney, AU (Contract)

2020 - 2021

- Worked with internal staff to develop ISO/NIST guidelines and frameworks for internal security uplift projects.
- Performed audits on internal and external cloud infrastructure.
- Discovered, and patched critical software vulnerabilities in third party code.
- Led the design of solutions to be deployed across the entire security portfolio
- Developed and presented training materials for use both nationally, and internationally.

SOFT SKILLS

- Technical Communication
- Conflict Resolution
- Solution Development
- Teaching and Knowledge Sharing
- Divergent-thinking
- Problem Solving

HARDWARE VENDOR IDEs

Experienced with development suites from:

Xilinx
Developer of advanced FPGA solutions

Espressif Systems
(A)IoT hardware developer

ST Electronics
Microcontroller designer

STANDARDS & FRAMEWORKS

ISO27001
NIST
Essential Eight
OWASP
ATT&CK
Lockheed Cyber Kill-Chain®

ISO

NIST

OWASP®

MITRE | ATT&CK®

CYBER KILL-CHAIN®

RECENT WORK EXPERIENCE

SENIOR SECURITY ENGINEER CONTRACTOR
Pure Security - Brisbane, QLD, AU (Contract)

2020 - 2020

- Applied advanced threat hunting techniques to find and remediate bugs with mission critical infrastructure for major several major international banks, and fintech companies.
- Performed web-application security testing in a collaborative, team enviroment.
- Worked with internal and external partners to secure cloud, local, and communications infrastructure.
- Developed techniques, and tooling for automated threat hunting.
- Utilized cutting-edge appsec, threat-hunting, and research techniques to drive the discovery and reporting of high quality customer actionables.
- Researched, and worked with internal teams to assess vendor, tooling, and coverage for clients
- Ran cross-team security brainstorm sessions to foster idea exchange.
- Built and maintained new reporting tools catered to cyber investigation work

SECURITY INTELLIGENCE ANALYST (APAC LEAD)
IBM - Armonk, NY, USA / Brisbane, QLD, AU (Contract)

2019 - 2020

- Provided IBM's white-glove tier-8 investigation & analysis service.
- Acted as IBM's singular SIA for the entire APAC region.
- Led forensic investigations of malware and other cybersecurity events inside high-security critical infrastructure.
- Performed in-depth investigations into foreign hostile threats, government actors, intelligence operations and their impacts on client IT/OT environments.
- Undertook proactive detection and prevention of cyberterrorism.
- Mentored other international SIAs on security analysis subjects.
- Developed tools and techniques for the detection of vulnerable infrastructure in Operational Technology, and IT setups.
- Advised clients and SOC teams on system tuning recommendations.
- Assisted in the development of new firewall rules and heuristics filters to intercept malicious traffic.

HEAD OF SECURITY OPERATIONS (APAC)
EMBEDDED DEVICE SECURITY ENGINEER (EU)
P3 Group/Umlaut - Aachen,
North Rhine-Westphalia, DE

2018 - 2019

- Led research and design teams in the design and fabrication of new electrical engineering hardware and software engineering solutions.
- Performed audits on national telecoms infrastructure.
- Discovered critical software vulnerabilities in third party code.
- Led the design of solutions to be deployed across the APAC security portfolio
- Liaised with international clients to communicate data, and increase turnover.
- Led telecoms security and RF/SS7/GSM/UMTS/LTE/SIP penetration testing
- Mobile and telecoms security analysis and testing.
- Embedded device firmware analysis and reverse engineering.
- Automotive system/Smart car vulnerability analysis.
- Assisted with RF Security system analysis, and robustness testing.

TECHNOLOGY

Programming Languages: Python, C, x86 ASM, x64 ASM, ARM, STM32 HAL

IDEs: XCode, STMCube32IDE, Brackets, PyCharm, IDA, Ghidra, Hopper

Hardware: STM32F, ARM Cortex®-M, ESP32/ESP8266, Arduino, ATTINY85, BladeRF, FPGA

Operating Systems: Windows, Linux, macOS, OS9, FreeRTOS, Android, iOS, Minix, BSD, EC25

AWARDS & CERTIFICATES

International Technical Achievements

IBM COGNOS - Gold

IBM, Armonk, New York

ASMS Technical Achievement Award

ASMS, Adelaide, Australia

COMMUNITY

Official Ableton Events Coordinator, and Music Production Lecturer.

Queensland, South Australia

Ableton

CONSULTING CLIENTS

Hivemind Group

Vodafone Intl.

DynoJet Inc.

RECENT WORK EXPERIENCE

HEAD OF OFFENSIVE R&D OPERATIONS (APAC, OPEC, EU)
TalonFour Cyber Research Labs - Adelaide, South Australia, AU

2017 - 2019

- Undertook GSM/4G/5G research and development in the fields of mesh networking, and security analysis.
- Spearheaded teams in iOS/Linux/Windows/Android software exploit and mitigation development research.
- Performed software security analysis and code auditing.
- Malware analysis, source code recovery and reverse engineering.
- Led teams in source code analysis.
- Provided international telecoms infrastructure security solutions for overseas clients in both the government and private sectors.

EMBEDDED DEVICE R&D LEAD
LiveView Genetics - Adelaide, South Australia, AU

LiveView Labs

2016 - 2018

- Designed IoT/embedded systems for the remote monitoring and assessment of agricultral data including GIS, animal sensors, microwave link, and more.
- Assisted in the development of cutting-edge drone-based ML/AI processing engines.
- Undertook design and testing of genetics data processing prototype software.
- Deployed farm, ranch, and breeder targeted cloud software solutions for data synconization and delta mapping.
- Enabled legacy systems to integrate with bespoke AWS application solutions.
- Performed robustness testing on predeployment software projects.

UX/UI TECHNOLOGY ENGINEER
FORCE R&D®
Force Technology Development Group - Adelaide, South Australia, AU

2014 2016

- Led in the design of military aligned virtual reality simulation software for deployment to government and general consumers.
- Worked on the development of APIs for GIS and GPS systems data
- Enabled UX/UI Design and marketing materials design.
- Designing UX/UI elements for software in development
- Created robust wireframes for preproduction testing
- Developed of APIs for GIS and GPS data syncronization
- Developed VR (UE4/Unity) solutions for API retrival and processing.

FURTHER WORK HISTORY AVAILABLE AT LINKEDIN.COM/IN/WOWJACKDARCY

REFERENCES

● ● ●

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